

# Commuters' and Localists' Styles of Socio-Spatial Segregation in Three Types of Arab Communities in Israel

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**Abstract:** This article examines integration vs. segregation of Arabs in Israel's social sphere. Most geo-spatial studies regarding inter-ethnic relations are single dimensional, focusing on residential segregation assuming its association to the social domain. We argue that in the globalizing world daily activity spaces, social networks and influences on everyday life conditions are rooted in growing horizons around residential location weakening the power of residential location to dictate life conditions. Hence we suggest employing a multi-dimensional approach. Specifically, we explore the associations among residential spaces (relating to Arab residents of: purely Arab localities; mixed-Jewish-Arab cities, and Jewish cities); main activity spaces (commuters to Jewish areas and localists—people staying mostly in the Arab localities) and social integration (social networks; repertoire of identities; attitudes toward integration and knowledge of Hebrew). The data incorporate tracking the movements of 177 responders for a week (using a GPS logger) and in-depth interviews, which were analyzed quantitatively. Core findings suggest that both residential place and activity spaces affect social integration, however, the locality type has a greater affect. In addition, we identified four integration sorts according to kinds of municipality, activity spaces, and integration measures: (1) segregated localists living in Arab municipalities; (2) commuters living in Arab localities characterized by limited integration; (3) Arabs residing in Jewish cities that succeeded economically but are characterized by limited social integration, and (4) those living in mixed cities which enjoy the highest, yet limited integration level.

**Key words:** Ethnic relations, integration vs. segregation, municipalities, Jews, Arabs.

## 1. Introduction

Studies on ethnic segregation in geography used to focus on population distributions in residential space [1-3]. Such studies failed to recognize the importance of human agency and mobility [4-6]. Lately, several studies shifted the debate in new directions. Main ideas refer to the need to consider ethnic segregation in individuals' daily activity spaces, segregation in several types of places in addition to the spaces they reside in. This call for a new paradigm associated with the growing attentiveness to the need to develop a

multidimensional concept of ethnic segregation that may be measured on a continuum between segregation and integration [7-9]. Moreover, this new focus raises questions regarding whether, in a globalizing world in which agents are much more mobile than ever before and are more exposed to tele- and mass-communication, it is possible to assume high correlations among the different aspects of segregation and integration [10, 11].

Although there are some empirical evidence for differences in levels of segregation within activity spaces and residential ones, no systematic study has tested whether different forms of activity spaces and residential location at the level of community are associated with further differences in social

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segregation versus integration as a multidimensional concept that includes also social aspects of access to intra and interethnic sources of social, cultural and emotional capitals.

We study the segregation of Arabs in Israel in three different residential communities: highly segregated, mixed, and highly exposed communities to majority members. We compare Arab members who commute to majority spaces (hereafter referred to as "commuters") with Arab localists who conduct most of their activities, including work, in minority local spaces ("localists"). We define social segregation versus integration in residential and activity spaces in terms of exposure to a selected set of social, cultural and emotional capitals recruited either from intraethnic or interethnic sources. Our study case involves Arab citizens of Israel who live in Arab towns, Jewish and Arab mixed cities, or Jewish cities, and work either in their local Arab spaces or in Jewish spaces.

Israel is a multiethnic society with the Arab-Jewish cleavage being the most radical one. Despite that, Arabs' and Jews' lives intersect quite frequently while they perform their routine daily practices. In addition, the Arab case enable us to distinguish among three different types of residential areas (Arabs who reside in Arab segregated towns; Arabs who reside in mixed cities and Arabs who reside in Jewish cities) and between Arabs who commute to Jewish spaces vs. Arabs who perform most of their daily activities in local Arab spaces. In this sense, Arabs' segregation in Israeli society represents segregation of ethnic minorities like colored minorities in western countries. Dissimilarity indexes of Arabs in Israeli cities are between 45 and 65, similar to ethnic average segregations of ethnic minorities in many European cities.

## **2. The Study of Ethnic Segregation**

Geographers have extensively examined ethnic segregation, isolation, and exclusion in terms of

uneven spatial distribution of minority groups in space, relative to the distributions of majority groups [12-14]. Such studies assume that human life conditions of isolation or exclusion are determined by residential spaces; however, people increasingly spend their daytime hours and interact with others in spaces outside their residential neighborhoods [3, 9, 11, 15,]. Hence, Pratt [10] calls upon the implementation of more complex models for the understanding of social space and segregation. Several studies have widened their analysis to non-residential sites of daily life, noting different types of segregation: segregation in either residential or work-places, or leisure places [16-22]. The impact of globalization and increased mobility, which makes individuals' activity orbits wider than ever before through long commutes and global tele- and mass-communication interactions, requires an angle of investigation beyond the residential sphere [8]. Giddens's [4] concepts of distanciation and regionalization set the basis for the understanding of human agency in the context of open reaches of everyday life spaces, including global horizons. An approach that considers human activity spaces, social networks, as well as access to other socio cultural resources also enables consideration of segregation and integration in social space as two poles on one continuum [7].

Indeed, segregation in residential and activity spaces are both relevant in different ways for the understanding of human isolation or integration. Residential segregation impacts life chances, as well as access to facilities, services, and environmental justice [23, 24]. Segregation in activity spaces deprives people from free movement between places and interaction with diverse others with whom they may or may not exchange ideas, worldviews, and social identities, thereby transcending their local worldviews and developing more effective skills to communicate and to create for themselves social and cultural capital from socially more heterogeneous sources.

Four approaches have been suggested. Contact theory considers local activity spaces to be the more dominant ones. However, the homogeneous social areas that characterize the main reference groups applied by traditional models of interaction [25] have been replaced by the city and the home region as a heterogeneous milieu of diverse strangers. Valentine [26] emphasizes the potential to constitute a sense of civility and respect for others in mixed communities. However, she questions Allport's [27] contact theory, arguing that proximity does not necessarily lead to encounters, and encounters do not necessarily bring people closer to each other, but rather may actually increase antagonism. From Valentine's [26] Valentine and Sadgrove's [28] and Leitner's [29] argument, it may be concluded that the consequences of proximity and encounters have to be empirically studied and contextually understood. In our view, contact theory contributes to the understanding of socio-spatial segregation and integration by focusing on the need to study them in the context of local communities (small towns or neighborhoods within cities) and social structures in which inter-ethnic encounters take place. Contact theory also supports our argument that residential and activity spaces are not necessarily correlated with each other or the spatial distribution of social networks. Accordingly, we decided to choose the level of local community to represent the more meaningful hierarchy of residential space relative to urban blocks and local neighborhoods. However, contact theory as it is applied by Valentine [26], does not consider the relevance of long distance and tele- and mass-communications to the understanding of segregation and integration.

Wong and Shaw [1] define each subject's activity orbit in space, and calculate his or her segregation index based on Lieberman's [30] exposure index. They thereby create for each subject one unified segregation index, which incorporates all everyday life spaces into one space. However, their index also does not consider tele- and mass-communications' potential

impact on socio-spatial segregation and integration, as well as the time and relative importance subjects assigned to each segment of daily life spaces. In fact, their study assumes that actual encounters are proportional to the relative proportions among the different ethnicities residing within subjects' everyday life spaces.

Kwan [3] suggests an approach that assigns a more essential role to activity patterns. She studies segregation and integration in time, space, and society. This approach supplies a platform to calculate probabilities of encountering others from different ethnicities in the different time-space units of people's daily lives, assuming that people who visit the same block of space in the same block of time are encountering each other. However, this approach does not allow exposing the encounters that the subjects actually chose to have. The approach also enables the calculation of segregation by one unifying index or by a visual model that describes subjects' entire activity spaces and their levels of segregation. However, as Kwan herself notes, there is a need for improved technologies in order to make the model feasible [3].

Schnell [11] and Schnell and Benjamini [8] offer yet another approach. They suggest a set of isolation versus integration indices along three complementary aspects of daily life: residential, activity, and social networks. They weight the relative time and importance assigned to each subspace by subjects as an index that predicts the impact of activities in these spaces on subjects' overall level of segregation versus integration in social space. While the residential index measures the proportion between neighbors of the same ethnicity versus neighbors of differing ethnicities, the activity index measures the probability for intra- versus inter-ethnic encounters in everyday life spaces, and the social networks index measures subjects' actual encounters. These three indices allow comparison between subjects' segregation or integration within the different studied aspects. The analysis also incorporates long distance tele- and

mass-communications within social networks as relevant factors of segregation versus integration. This approach is able to account for the lack of correlations between the different dimensions of segregation versus integration that result from the global reality of high mobility. Empirical evidence from a case study conducted in Tel Aviv shows that long-distance and virtual encounters may significantly impact subjects' segregation versus integration and that no significant correlations exist among the three investigated aspects [9].

Findings indicating a lack of correlations among the three aspects of segregation are important in two complementary ways. First, they demonstrate that residential segregation lacks the power to dominate activity spaces and social networks in the era of globalization [9]. Subjects' mobility in everyday life spaces and the distribution of social networks in many cases transcend the bonds of local communities. Second, the lack of correlation between activity spaces and the distribution of actual social networks undermines the applicability of Kwan's [3] and Wong and Shaw's [1] aforementioned approaches to the case of Tel Aviv, as they assume direct and simple associations between activity spaces and actual social network spaces and overlook the fact that some individuals are highly selective in choosing social contacts beyond the milieus in which they reside.

In the current study, we widen the concept of socio-spatial segregation versus integration in order to analyze the associations between segregation and integration in residential and activity spaces on the one hand, and a set of social factors in the main aspects of daily life on the other. These latter factors should involve humans' inclusion in social networks and cultural sense of participation in society [31, 32]. In this respect, variables like knowledge of Hebrew, exposure to Hebrew media, and basic positive attitudes toward integration may be selected as major sources of cultural capital that once recruited from Jewish sources, supports integration into Israeli

society. Patterns and qualities of social links may be seen as major sources of integration. Special care is devoted to the quality of social networks [33], distinctions between weak and strong relations [34], and the role of inter-ethnic bridging networks for integration [35]. Accordingly, we define social integration in terms of encounters with Jews, friendships with Jews, and support from Jews as major sources of social integration accumulated from Jewish sources. In addition, we follow the phenomenologist tradition that assigns a salient role in developing socio-spatial orientation to direct experiences in space and emotions [36-38].

We define social segregation as agents' social and cultural separation mainly within their intra-ethnic community and sense of alienation in inter-ethnic spaces. We define integration as agents' participation in inter-ethnic relations and feelings of attachment to inter-ethnic spaces [39]. We test the extent to which performing daily life in either segregated, mixed or integrated residential spaces and Arab or Jewish activity spaces is associated with recruiting social, cultural and emotional capitals either from integrative Jewish or segregating Arab sources.

### **3. The Case of Arab Israelis**

Since the State of Israel was established in 1948, the Arab's ethnic minorities have comprised a sizeable element of the Israeli population. Residentially, the sample selected for our study reflects the broader Arab-Israeli population, which is split into residents of exclusively Arab (segregated) towns, mixed cities, and Jewish cities. Most Arabs in Israel reside in small towns that have urbanized since the 1970s [40], with populations of between 5,000 and 40,000. These towns are residentially segregated with almost no Jewish residents. Most of these towns are located either in the national periphery or in the more remote outskirts of Israel's main metropolitan areas.

About eight percent of the Arab population in Israel lives in mixed cities. Before Israel's independence in

1948, the Arab-Palestinian population comprised the majority of the mixed cities, inhabiting five main mixed cities. Currently, the mixed parts of these cities comprise mainly the small minority of lower-class Arabs whose ancestors managed to avoid exile in the 1948 War of Independence; Arab migrants from surrounding villages; and Jews whose ancestors were refugees fleeing the Holocaust and Arab countries, who settled in these cities in houses abandoned by Arab refugees. In addition to these cities, a few other Israeli cities became mixed following the migration of Arabs to enclaves in originally Jewish cities. The mixed neighborhoods suffered from under-development stemming from urban renewal plans, which up to the 1980s aimed at destroying the old infrastructure and constructing new public housing.

During the last decades, a new phenomenon emerged involving the migration of young, highly educated Arabs, mainly high-tech workers, into Jewish cities. These individuals chose to live among Jewish neighbors, distancing themselves from the Arab enclaves in some of these cities. Most migrants of this type move to the metropolitan area of Tel Aviv; however, their total number is small.

#### 4. Research Methods

##### 4.1 Participants

The study is based on a sample of 177 Arab-Israeli residents, distributed among three different types of residential communities and two styles of activity—commuters and localists. In this study, we

chose a stratified sample of 89 research subjects from four segregated Arab towns: one in the center of the country (Taybe) and three in the north (Tamra, Kabool, and Sachnin) (Table 1). Fifty-nine interviewees reside in three mixed cities (Ramlah, Lod, and Haifa), and thirty live in the Jewish neighborhoods of the metropolitan area of Tel Aviv. Slightly less than two-thirds of the interviewees in each of the towns and cities commute to workplaces in Jewish areas, similar to the proportion of commuters in the overall Arab population in Israel. Over one-third of the interviewees are localists who work in their own hometown, in an Arab milieu (Table 1). In addition, in each of these subgroups we maintained a balance between males and females, and we made sure to include interviewees from different socio-economic backgrounds. Within these quotas, we randomly chose about 30 people in each town with the support of a local research assistant. We selected the names from the water consumption bills. Refusal rates were about one third, with somewhat more cases in mixed towns than that in the other communities.

In order to simplify the analysis, we relate only to those commuters who commute to Jewish spaces (who comprise the vast majority of the commuters), including in this group those who spend at least five hours a day in Jewish spaces. We define localists as those who spend up to three hours a day in Jewish spaces. As a result, we distinguish among five groups of Arabs: commuters and localists, who live either in Arab, mixed, or Jewish cities. These categories represent the vast majority of possible combinations

**Table 1** Research subjects' division by socio-spatial lifestyle group.

Residential space	Activity space		Total
	Localists	Commuters	
Arab town	38	51	88
Mixed city	16	43	59
Jewish city	*	30*	30
Total	54	124	177

\*We include all Arabs who live in Tel Aviv as commuters even if they work within the metropolitan area of Tel Aviv since they work in Jewish milieus.

of residence and commuters among Arabs in Israel. The sample over-represents Arabs in mixed and Jewish cities in order to secure at least 30 interviewees in each type of residence. This enables us to compare segregation versus integration among the three communities and between localists and commuters to Jewish spaces.

#### *4.2 Process*

Each research subject was asked to monitor his or her daily life patterns with a GPS device for one continuous week and to be interviewed twice—once prior to the week of monitoring and once at the end. We registered all their movements throughout the course of the week, at the end of which we uploaded their coordinates to an ARCVIEW program that mapped the results on a basic map. The first interview questionnaire, prior to the GPS investigation, included questions concerning the six aspects of segregation versus integration adopted in this study: residential space; activity spaces; attachment to ethnic spaces; face-to-face and virtual social linkages as indicators of social capital; identity, attitudes toward integration, knowledge of Hebrew; and education and income as indicators of structural integration. In characterizing residential segregation, we simplified the classification into three categories, indicating residence in Arab segregated towns, mixed cities, and Jewish cities where the vast majority of residents are Jewish. In terms of activity spaces, we simplified the classification into a dichotomous variable of commuters to Jewish spaces who spend more than five hours a day in Jewish spaces and localists who spend less than three hours a day in Jewish spaces.

In the second interview, after producing the activity maps, we clarified with the interviewees the places in which they had spent more than 15 continuous minutes and the purposes of their main trips. Faults caused by inaccuracies produced by the GPS were also clarified in the interviews. In addition, we added questions aimed at identifying activities that were

performed less frequently than once a week and, thus, might not have been detected by the GPS monitoring. Finally, we conducted in-depth discussions regarding questions triggered by the GPS mapping. Arab MA students from the Department of Geography at Tel Aviv University conducted the interviews in Arabic over the course of 2012 and the first half of 2013.

#### *4.3 Analysis*

The analysis consists of three main stages: First, various results for each individual were calculated on the SPSS 21 program in order to measure their segregation versus integration in regard to each of the six aspects of this spectrum. The results are organized on ordinal scales of 1-5 (from very low through intermediate to very high), with some exceptions in which total numbers are used, such as the number of friends, and people to whom the interviewees would turn for help. Second, we calculated mean values for each group according to residential and activity spaces. Third, we applied a univariate general linear model between residential and activity spaces and each of the social aspects of segregation versus integration. This stage also involved a post-hoc calculation for residential spaces. The results enable an assessment of the association between residential and activity spaces and the interactions between them on the one hand and between them and the social indicators in terms of integration versus segregation on the other hand.

### **5. Results**

Before we analyze the associations between residential and activity spaces on the one hand, and social segregation versus integration on the other hand, we proceed to describe the structures of Israeli Arabs' activity spaces. Our subjects' activity spaces are mainly distributed between home and work, with the majority of the Arabs who reside in Arab towns commuting long distances to the metropolitan centers of the country, and a minority commuting to nearby Jewish towns. Only a marginal number of workers,

mainly female teachers, work in nearby Arab towns (Table 2). Arabs who reside in mixed cities work in either Arab or Jewish spaces in about similar proportions, and almost all Arabs who reside in Jewish towns work in Jewish spaces. Furthermore, the interactions of the latter with Arabs who reside in the ethnic enclaves of the mixed cities are negligible. Another conclusion worth mentioning relates to localists' tendency to spend about two hours a day outside their home places, most of that time in Jewish spaces.

A main conclusion that arises from these results is that the daily life of Arab citizens of Israel is highly intertwined with Jewish everyday life. They do not show a tendency to connect to Palestinian society beyond minimal ties that enable them to satisfy their emotional sense of belonging to the Palestinian national identity. Neither do they tend to develop internal autonomous social networks that overpass Jewish social spaces.

From the personal interviews, we learn that most of the subjects spend only limited time in the Palestinian territories—a one-day visit once a month at most. This is more relevant to Arabs who live close to the Palestinian territories in the West Bank, and much less to those who live in the north or the south. However, such visits to the West Bank bear an important symbolic meaning beyond the time spent there. Many research participants testified that they try to spend one Saturday each month in the West Bank for three main reasons: to visit relatives, to expose their children to an authentic Palestinian life style, and to support the Palestinian economy. Beyond these

incentives, many Arabs testified to being focused toward the large Israeli cities of Tel Aviv and Jerusalem, where their destiny as citizens of Israel is determined and they can protest against their deprivation as Israeli citizens.

Many of the interviewees stressed the ways in which Jewish spaces enlarge their range of possibilities—beyond the obvious realm of career opportunities. Young adults and teenagers mentioned that only in Jewish spaces are they allowed to meet peers from the other sex, free of the social control mechanisms that prohibit such encounters in Arab spaces. Women testified that in Jewish cities they could visit coffee shops with their female mates or with their husbands—an act that is considered to be indecent in Arab towns. Several interviewees perceive visits to shopping malls in Jewish towns as visits to neutral spaces that are not identified either as Jewish or Arab. This sense of visit in neutral space gave them some sense of “travelling abroad” freeing them from the tensions of living in the “pressure cooker” of Israeli life.

We turn now to analyze the associations between residential and activity spaces and the other aspects of segregation versus integration. The scalability of the indices: residential space; activity space; attachment to ethnic spaces; encounters with Jews; friendship with Jews; help from Jews; exposure to Hebrew media; fluency in Hebrew; and Israeli shared identity on the Alpha Cronbach test is 0.63.

Tables 3 and 4 summarize the analysis of the associations between residential and activity spaces on the one hand, and attachment to ethno-national spaces

**Table 2 Average time spent in activity spaces (hours per standard day).**

Residential area	Localists vs. commuters	Activity in spaces						
		Arab home	Arab nearby	Jewish nearby	Arab far	Jewish far	Mixed	Palestine
Arab towns	Localists	13.8	0.4	0.8	0.3	0.6	0.4	0.2
	Commuters	7.7	0.7	2.1	0.5	6.6	0.7	0.2
Mixed cities	Localists	3.8	0.4	3.6	0.4	0.6	7.1	0.2
	Commuters	0.8	0.3	3.0	0.9	1.8	7.9	0.06
Jewish cities <sup>1</sup>		2.3	0.3	11.7	0.9	0.1	1.5	0.1

<sup>1</sup>Arab home relates to the palce of origin from which the subjects immigrated Jewish cities.

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**Table 3 Mean values for attachment to ethno-national spaces by residential and activity spaces.**

Residential place	Activity space	Sense of attachment		
		Arab space	Jewish space	Mixed space
Arab towns	Locals	4.6	2.7	3.1
	Commuters	4.3	3.2	3.1
Mixed cities	Locals	4.1	3.8	4.0
	Commuters	4.3	3.8	3.9
Jewish cities	Locals	4.5	3.4	3.7
	Commuters	4.4	3.0	3.4
Total	Commuters	4.4	3.5	3.5
	Total	4.4	3.3	3.5

1 = low attachment; 5 = high attachment.

**Table 4 Mean values for cultural integration by residential and activity spaces**

Spaces of residence	Activity spaces	Cultural capital			
		Attitudes toward integration	Saliency of Israeli identity	Saliency of Palestinian identity	Level of Hebrew knowledge
Arab towns	Localists	1.5	2.4	4.5	4.2
	Commuters	1.5	2.3	4.2	4.6
Mixed cities	Localists	1.3	1.8	4.1	4.6
	Commuters	1.6	2.1	3.8	4.7
Jewish cities	Localists	2.6	1.6	4.3	4.6
	Commuters	1.4	2.2	4.4	4.3
Total	Commuters	1.8	2.1	4.1	4.6
	Total	1.7	2.1	4.2	4.5

1 = very low level; 5 = very high level

on the other. Table 3 shows that, unsurprisingly, the subjects' average results for sense of attachment to Arab spaces are similar for both residential and activity spaces, to which the subjects attributed high attachment (more than 4 out of 5), whereas Jews in a former study assigned attachment at rates lower than 4 to their Jewish home spaces [41]. This type of strong attachment to the home space characterizes many minorities, who perceive their ethnic spaces as a refuge [42]. Subjects assigned the lowest levels of attachment to Jewish spaces, but these were also above 3 on average—with deep differences between residential and activity spaces.

Arab localists recorded a particularly low level of attachment to Jewish spaces. This finding is understandable, since these individuals are segregated in both their residential and activity spaces. Arabs living in mixed cities, however, marked the highest levels of attachment to Jewish spaces, regardless of

their status as localists or commuters. This finding indicates the institutionalization of norms of mutual ethno-national inclusion developed in mixed cities. Arabs who are not residents of mixed cities expressed a sense of attachment to mixed cities that is slightly lower than their attachment to their Arab home places but higher than their sense of attachment to Jewish spaces. This result confirms the relevancy of ethno-national bias in the sense of emotional detachment from Jewish spaces, although this bias remains low. In analyzing the differences between the different communities and localists versus commuters, it appears that inter-group variability is significantly higher for type of community ( $F = 7.9; p = 0.001; df = 2$ ) and insignificant for activity spaces and the interactions between activity spaces and type of community.

Table 4 addresses the cultural aspects of the integration of the research subjects. Culturally, we



define integration in term of knowledge of the Hebrew language, as well as basic attitudes toward integration. In addition, we define the salience of Israeli identity as one that is expected to unite Jews and Arabs as Israeli citizens, and the salience of Palestinian identity as one that presents a national separatist identity and correlates negatively with the salience of the Israeli identity counterpart [39, 41]. Table 4 demonstrates mean values for cultural capital and national identity by residential and activity spaces, showing that most Arabs are highly proficient in Hebrew but they do not show a strong tendency to immerse into Jewish Israeli society. The salience of their Palestinian identity is twice as high as the salience of their Israeli identity, although their Israeli identity is relevant to them. They also tend to present attitudes that emphasize their concern regarding the potential loss of their unique identities as Palestinians and Arabs, rather than attitudes that support integration.

In analyzing differences in cultural integration (Table 5), the most significant differences in the general analysis involve attitudes toward integration, and far behind these are knowledge of Hebrew language and salience of Israeli identity—the latter of which is only close to significant. The Arabs who moved into the Jewish cities present the most positive attitudes toward integration, although they do tend to assign low salience to their Israeli identity and relatively strong salience to their Palestinian identity (Table 4). It seems that these individuals do not view any contradiction between their Palestinian and their Israeli identities. Many people complain about difficulties they encounter involving antagonistic responses to their attempts to rent apartments. The most disturbing events mentioned many times involve

situations of small-talk in pubs or parks in which racist comments against Arabs are made by someone unaware that an Arab is listening, who then apologizes about the racist comment once becoming aware of their presence, putting an end to the free atmosphere enjoyed previously.

While all cultural aspects vary significantly among Arabs with different types of residential spaces with relatively high F values for integration attitudes, only knowledge of Hebrew significantly varies according to activity spaces. This means that residential space is more closely related to cultural integration than activity space. Moreover, interactions between the two variables—residential and activity spaces—are insignificant: the association between places of residence and cultural integration is independent of the intervention of activity spaces. The main differences in this regard are between those who live in mixed cities on the one hand, and Arab towns and Jewish cities on the other hand. Post-hoc analysis reveals that acculturation into Israeli society in mixed cities is significantly stronger than that in Arab towns ( $P = 0.0001$ ) and almost significantly stronger than that in Jewish cities ( $P = 0.06$ ), while the difference is not significant at all between Arab towns and Jewish cities.

We define social integration in terms of the number of friends and those who potentially could provide a source of support in case of need, as well as to exposure to telecommunication and mass media (as demonstrated in Table 6). We take number of friends as a proxy for weak social linkages and potential assistance as demonstrating strong and effective linkages, as per the distinction provided by Granoveter [34]. Results among Arab participants in

**Table 5 Associations between residential and activity spaces and cultural integration.**

Source	Integration attitudes			Israeli identity			Hebrew knowledge		
	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>
Residential space	2	24	0.000	2	4.1	0.02	2	2.8	0.01
Activity space	1	2	0.13	1	0.3	0.6	1	5.0	0.03
Residential Activity	1	1.7	0.19	1	0.8	0.4	1	1.4	0.23

this study demonstrated an average of approximately 28 Arab friends and six Jewish friends each. In cases of need, the average Arab can ask for support from about four Arabs and one Jew. This means that Arabs' social lives are highly embedded in Arab milieus, but some social networks do connect them to Jewish society. In terms of telecommunications, Arabs prioritize social contacts with other Arabs in Israel and in the Arab world, and maintain only few interactions with Jews or westerners abroad while using the Internet. Only in mass media sources did Arabs give a slightly higher priority to Hebrew media—mainly TV news and newspapers, as opposed to entertainment programs. Only in cases of international crisis, mainly in the Middle East, do they tune their televisions to El Jazeera, as the counter-phenomenon of Jews watching CNN or BBC. Our findings demonstrate that commuters make more Jewish friends than localists do, but they succeed only marginally in transforming friendships with Jews into more effective social capital by attaining help from Jewish friends. At the same time, commuters lose many Arab friends, and to some extent also support from their Arab peers.

In addition, differences among the places of residence are significant for the four aspects of face-to-face social aspects (Table 7). Arabs in Arab towns, mainly localists, are strongly embedded in local Arab social networks. They have the largest number of Arab friends and the lowest number of Jewish friends. In contrast, Arabs in mixed cities have the largest number of Jewish friends, demonstrating the power of daily life in mixed communities to stimulate inter-ethnic social networks (at least in the case of Israeli cities). Most interestingly, Arabs in Jewish cities lose many social contacts with other Arabs, but they do not gain friendships with Jews, despite their migration to Jewish spaces. The one aspect that strongly characterizes the differences among places of residence is number of Arab friends. This result expresses a tragic situation that Arabs in Israel face: other Arabs comprise the major source of

social linkages, and attempts to integrate into Jewish milieus provide only marginal levels of social capital due to antagonistic attitudes of Jews toward Arabs. One exception is the mixed cities, in which supportive norms for some levels of integration have been established.

Interestingly indeed, the number of Arab friends does not show any significant differences among those with differing residential and activity spaces, while differences in other factors compared in Table 7 (notably number of Jewish friends and help from either Arabs or Jews) are significant in this regard. The same three aspects of social integration are significant in describing variations among places of residence, but none of them is significant in describing differences between activity spaces. Interactions between residential and activity spaces are significant in describing differences in number of Arab friends and help from Jews. It seems that commuters from mixed cities enjoy support from Jewish friends, while localists in Arab towns are blocked by their Arab local milieus. Once again, the post-hoc analysis reveals that residence in mixed cities appears to present the strongest difference regarding these factors from all other places of residence—with significance at a level of 0.001 relative to Arab towns and 0.02 relative to Jewish cities.

Residential spaces present highly significant differences in terms of differences in virtual communication among residential and activity spaces, mainly regarding exposure to Hebrew media, while activity spaces do not impact exposure to virtual communication (Table 8). The interactions between residential and activity spaces remain insignificant, and their combined effect is significant in the cases of exposure to Hebrew media and telecommunications with Arabs.

In addition to cultural and social integration, we assessed factors involving structural integration into the more privileged classes as well. We define the economic aspect in terms of a self-evaluation of ones'

**Table 6 Mean results for social integration by residential and activity spaces (<sup>1</sup> = including non-Jewish westerners in online communications. <sup>2</sup> = ordinal scale between 1-5).**

Residential type	Localist vs. commuter	No. of Arab friends	No. of Jewish friends	Help from Arabs	Help from Jews	Tele-commu- nications with Jews <sup>1</sup>	Tele-commu- nications with Arabs	Jewish mass media <sup>2</sup>
Arab Towns	Local	32.0	3.3	4.9	0.4	6.2	32.4	3.2
	Commuters	23.5	4.4	4.3	1.0	5.5	22.3	3.1
Mixed cities	Local	21.3	5.4	3.6	1.3	19.2	19.2	2.8
	Commuters	24.1	7.8	3.0	1.9	15.1	73.0	2.9
Jewish cities	Local	29.8	11.7	3.6	1.3	13.1	37.1	2.9
	Commuters	29.6	4.6	4.3	0.9	8.3	43.9	3.1
Total	Total	25.2	7.2	3.9	1.1	8.1	26.7	3.0
Total	Total	28.1	6.0	4.1	1.0	8.2	36.2	3.1

**Table 7 ANOVA for the associations between residential and activity spaces and face-to-face social integration.**

Source	Arab friends			Jewish friends			Help from Arabs			Help from Jews		
	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>
Residential space	2	0.8	0.4	2	3.9	0.02	2	13.5	0.000	2	7.4	0.001
Activity space	1	0.1	0.7	1	1.3	0.25	1	0.001	0.9	1	0.03	0.9
Residential activity	1	3.7	0.05	1	0.4	0.52	1	4.7	0.03	1	5.6	0.02

**Table 8 ANOVA for the associations between residential and activity spaces and virtual social integration.**

Source	Exposure to Hebrew media			Tele-communications with Arabs			Tele-communications with Jews		
	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>
Residential space	2	23.8	0.000	2	6.1	0.003	2	3.9	0.02
Activity space	1	2.2	0.1	1	7.6	0.006	1	0.17	0.7
Residential activity	1	1.7	0.2	1	2.4	0.1	1	0.04	0.8

income relative to the average income in Israel. We added a component of education to this measure since higher education is associated with jobs of higher status and lower risk of unemployment. The results highlight the differences among residential places: Arabs in Jewish cities earn above the Israeli average, while Arabs in mixed cities, mainly those who work in the Jewish sector, perceive their income to be the lowest (Table 9). Interestingly, however, according to official statistics, Arab workers in Arab and mixed towns share the same income level, which reaches about sixty percent of the average income of Israeli Jews. The differences in perceptions may be due to the closer contacts of Arabs in mixed cities with Jews in a way that makes their deprivation more visible. Arabs who have migrated to Jewish spaces are highly

qualified professionals who seek privileged jobs in high-tech and other privileged professions. This result is confirmed also by the distribution of education among residential places. Almost all Arab residents of Jewish cities have academic degrees, whereas localists in Arab towns and mixed cities are the least educated. This result confirms also our argument that more professional workers seek the more challenging opportunities in the Jewish labor markets, despite the fact that such jobs do not necessarily supply them with higher incomes (Table 9).

In calculating the significance of variances among residential and activity spaces in terms of economic integration, it seems that residential spaces are significant in distinguishing among the opportunities for economic integration. This fact is true mainly

**Table 9** Mean values for factors of economic integration by residential and activity spaces.

Residence spaces	Activity spaces	Economic capital	
		Income	Education
Arab towns	Localists	2.6	3.7
	Commuters	2.5	4.2
Mixed cities	Localists	2.2	3.7
	Commuters	1.9	4.4
Jewish cities	Localists	3.7	5.0
	Commuters	2.4	3.7
Total	Localists	2.6	4.4
	Commuters	2.5	4.2

1 = very low level; 5 = very high level.

**Table 10** Associations between residential and activity spaces and economic integration.

Source	Income			Education		
	<i>df</i>	<i>F</i>	<i>P</i>	<i>df</i>	<i>F</i>	<i>P</i>
Residential space	2	20.1	0.00	2	3.3	0.04
Activity space	1	0.8	0.4	1	6.5	0.01
Residential activity	1	0.2	0.6	1	0.07	0.8

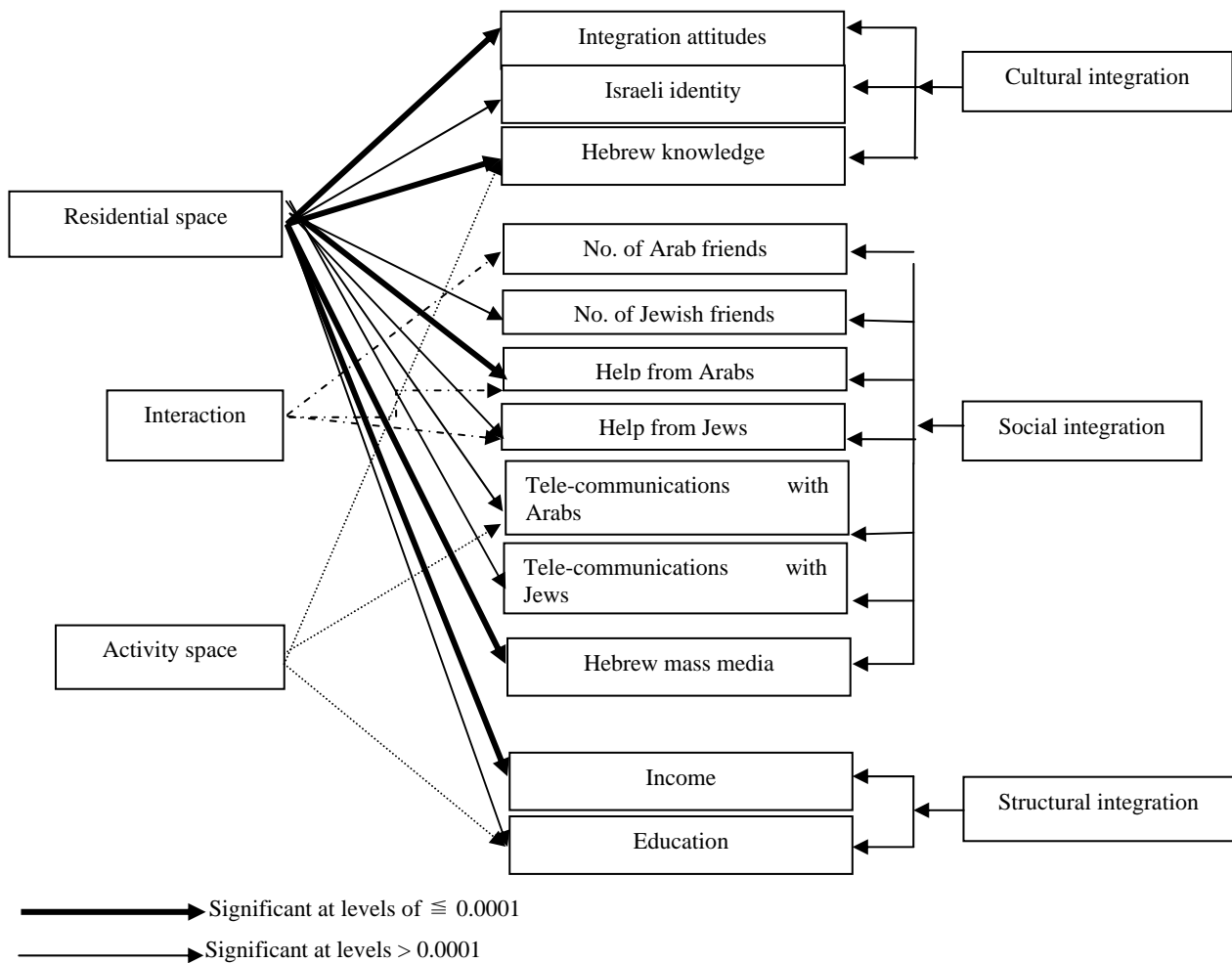
concerning income, with extremely high *F* values that stem from the high income of Arab residents in Jewish cities (post-hoc = 0.0001 relative to mixed cities) and the low level of income in mixed cities. In terms of activity spaces, only level of education is significant, to a much lower extent (Table 10). The interactions between residential and activity spaces remain insignificant in this regard.

## 6. Discussion

This article tests associations between agents' segregation vs. integration in residential and activity spaces on the one hand and agents' segregation vs. integration in social, cultural and emotional aspects of everyday life. In this study, we distinguished among five groups according to their orientation to residential and activity spaces: residentially segregated localists; residentially segregated commuters; residentially mixed localists; residentially mixed commuters; and those exposed to Jewish spaces. We tested differences among the groups in their forms of either segregation or integration in the spatial, cultural, social, and economic aspects of the model.

The analysis leads to the conclusion that most Israeli Arabs are residentially highly segregated but simultaneously very active in Jewish spaces. This means that most Arabs are exposed to Jews quite extensively either by living in mixed or exposed places or by commuting to Jewish spaces. Accordingly, Arabs feel quite comfortable in spaces dominated by Jewish residents—unlike the past, when we found that most Arabs felt a sense of “strangeness” when reaching out to Jewish-dominated spaces [38]. Despite this situation, Arabs are more oriented toward segregated styles of social and cultural lifestyles. Arabs tend to adopt integrating cultural strategies by learning and using Hebrew and by exposing themselves to current events media programs. In addition, they adopt social strategies of integration in seeking social support from Jews. In all other aspects, Arabs tend to segregate.

We found that residential space is much more highly associated with differences in segregation versus integration than activity spaces (Fig. 1). Significant differences exist among Arabs residing in different types of communities. Meanwhile, commuters



**Fig. 1** The relative impacts of residential and activity spaces on segregation vs. integration.

to Jewish spaces tend more to integrate in terms of Hebrew knowledge, education level, and telecommunication with other Arabs, while according to the rest of the aspects no significant differences between localists and commuters are registered. The interactions among the two aspects of residential and activity spaces are associated mainly with developing social linkages with Jews. Fig. 1 highlights the dominance of residential communities over commuting in supporting styles of segregation versus integration.

This result does not necessarily support the Durkheimian assumptions of direct associations between residential segregation and social exclusion. According to this latter assumption, one can expect to find the highest levels of socio-spatial integration in

Jewish cities where Arabs are extremely exposed to Jewish neighbors and distance themselves from Arab enclaves and the highest levels of segregation in Arab towns, with mixed towns in the mid-range of segregation levels. In fact, we found the highest levels of socio-spatial integration in the Arab enclaves of mixed cities, while the highly residentially exposed Arab residents of the Tel Aviv metropolis are socially and culturally segregated as much as the residents of the Arab towns.

It seems that in mixed towns, an inter-ethnic ethos of co-existence has developed, mainly among the poorer segments of society. There is a Jewish legitimization of an Arab presence in these cities and an understanding that in order to make daily routines

possible, co-existence is necessary and beneficial to all. This does not mean that strong social relations of trust and sense of unity are developing in these mixed cities. On the contrary, many of the interviewed members of the mixed cities experience mistrust to Jews causing them to manage inter-ethnic relations in suspicious and cautious way.

Our findings are supported by several approaches. Schnell and Benjamini [8, 9] show that for 11 ethnic groups in Tel Aviv-Jaffa, no correlations existed between segregation in the residential, activity, and social network spheres. A more detailed study by Goldhaber and Schnell [42] shows that even among Arabs in the Arab enclave in Jaffa, such correlations remained marginal.

To some extent, our study supports contact theory, which seeks to uncover forms of segregation and integration in local communities like small towns, and that relates to interactions among individuals in the context of the milieus in which they act with their unique history, ethos, and the public atmosphere [27, 30]. In this sense, mixed cities in Israel have crystallized as milieus of co-existence. However, the lack of distinction between the different aspects of inter-ethnic relations in contact theory prevents identification of lack of correlations among the aspects of segregation versus integration as was found in Tel Aviv-Jaffa [42] and in this study, as well as exposure of the impacts of virtual communication among social groups that are more intensively exposed to global horizons than most Israeli Arabs.

Concerning activity spaces, the results show that commuting to Jewish spaces has only marginal impact on Arabs' social and cultural exposure to Jewish society. Arabs who commute to Jewish spaces and even create Jewish friends fail to transform these opportunities into effective human capital. It seems that, on the one hand, Jews exclude them while on the other hand they are under threat of losing support from Arabs in their Arab hometowns. Suliman and Schnell [43] show that the elderly in the Arab use

their control over lands in order to control their children, putting pressure on them to stay in their hometown and accept some parental authority in addition to intensive support from the extended family and the clan. In the same way, the Muslim Brothers exploit the isolation of localists (mainly women and children) in Arab towns to recruit them to the ideology of political Islam [39]. One exception is the Arabs in mixed cities, who engage in more networks with Jews. This does not mean that Jewish-Arab relations in mixed cities overcome suspicions and lack of trust, but rather that residents manage to maintain correct relations in order to enable normal habituality. Close observations and interviews in mixed cities show that many residents experience inter-ethnic encounters on a regular basis, but that usually such engagements are undertaken with special caution. This issue raises the importance of Coleman's [33, 42] approach that relates to the quality of interactions beyond the structure of social networks; however, further study of the quality of inter-ethnic interactions in mixed cities is required. Likewise, statistical interactions between residential spaces and activity spaces are marginal, emphasizing the dominant effect of residential space on segregation versus integration in the case of Arabs in Israel.

## **7. Conclusions**

The study of Arabs' segregation versus integration as a multidimensional phenomenon reveals that types of residential places and to some extent daily activity patterns may be associated with different styles of segregation versus integration with minimal interactions between them, although the data available preclude conclusions regarding any causal relations among the different aspects of the analysis. The study reveals also that significant differences in styles of segregating versus integrating take place among the three types of places studied here, while individuals' activity spaces only marginally impact these styles. While most Arabs seem to search for Jewish networks,

know Hebrew, and reach out to Jewish spaces, they gain only marginal levels of effective social capital.

It seems that Arabs who live in Arab towns, mainly localists are over-embedded in local social networks and cultural norms that bind them to segregated lifestyles. However, reaching out to Jewish spaces is only marginally associated with social and cultural integration, which have only marginal effects on their income. The power of exclusionary forces initiated by the Jewish majority is highlighted in the case of Arabs who have migrated to Jewish cities. Their economic success is based on skills that they accumulated as youngsters in Arab towns, while they gain only very limited success in developing social linkages in the Jewish city. Residents of mixed cities present a third style of those that are more socially and culturally integrated, but these resources remain only partly effective since many such cities share a local milieu of deprived and marginalized groups of both Jews and Arabs, and in many cases these inter-ethnic relations do not necessarily coincide with high levels of mutual trust, but rather involve mutual suspicion.

The analysis suggested here is unique in comparing the associations between residential and activity spaces and their relations to styles of social integration versus segregation. It is also unique in widening the concept of segregation and integration into a multidimensional analysis that relates to selected aspects of social everyday life. Its treatment of residential space is of hometown community with its social milieu and not in the narrow term of residential space common in spatial segregation studies. In this sense, the study joins the study unit adopted by Valentine [26, 28] and her associates. However, this study presents a simplified model relating only to two ethnic groups of majority and minority, one hierarchical spatial level (town) and commuters versus localists. It remains for future studies to apply a more sophisticated model to measure the impact of residential space and activity spaces on segregation versus integration among several ethnicities.

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